In the later paper Warshawsky asks how the expectation of changes due to SFAS 106 actually affected stock prices, using multiple regression analysis. This approach is motivated by the fact that the adoption of accounting changes inherent in SFAS 106 was anticipated, at least in part, well before actual adoption. As a dependent variable to be explained, he takes market value of common stock relative to the level of tangible assets (as reported in the balance sheet) for a sample of slightly over 200 private companies for the years 1986, 1987, and 1988. He takes a number of explanatory variables, including a measurement of the retiree health liability implied by SFAS-106 (measured in a way similar to the USTA study) relative to the level of tangible assets for the same sample.

Warshawsky finds that an increase in the present discounted value of anticipated retiree health liabilities by one dollar reduces market value of common stock by approximately 50 cents (in contrast to the full offset of one dollar that theory implies.) This estimate has a large confidence interval however. For 1988, for example, it was estimated that a dollar of increased health liabilities reduced stock value by 46 cents, but that a 95 percent confidence interval puts the true effect at between a reduction of 21 to 72 cents.

The Warshawsky estimates suggest that with the high degree of uncertainty regarding the impact of SFAS 106 before it was adopted, there was a clear depressing effect on stock prices. The fact that the mean of the estimated effect was only fifty cents on the dollar is attributed by Warshawsky to the market's belief that the true liabilities that companies may face are less than a mechanical application of SFAS 106 would imply. As Warshawsky puts it, "the finding that retiree health liabilities may have less of an effect on

market values than other firm liabilities suggests that the market may be making assumptions that are more liberal than required by the FASB pronouncement or that the market is anticipating corporate and government actions that will reduce companies' liabilities for retiree health benefits." (p. 21)

8. This last point -- that corporations may act to reduce retiree health benefits or that government regulations may be changed to lessen a the liability of corporations in regard to such benefits -- is especially important not only in looking at the effects of anticipated changes, but also at looking at estimates of the actual cost effects of SFAS 106, as in the USTA study. Spiralling health costs have lead many corporations to cut back on benefits previously promised to workers and to the expectation that the burden of health costs would be shifted, in part to the U.S. government. Warshawsky's estimates suggest that the market may anticipate such a shift. Estimates of the cost of SFAS 106 which assume that present provisions will stay in place would then overestimate the effect of 106 on companies offering retiree health benefit plans.

This possible overcompensation for the effects of SFAS-106 is distinct from the overcompensation from stock price movements. To take a simple example, let us begin with the fifty cents on the dollar figure estimated from Warshawsky's data for 200 companies. Suppose this reflects the expectation that corporate and government actions to offset the effect of SFAS 106 will reduce the true cost to one-half of the cost calculated on the assumption of no offsetting actions. If this expectation is correct, so that corporate and government actions do in fact have this effect, estimates of the effects of 106 which

ignore this offset will overstate the true costs by a factor of 2. That is, independent of any effect on stock price leading to a compensation before the fact as outlined in paragraphs 5 and 6, failure to account for offsetting corporate and government actions would, in this example, lead the after the fact compensation to be twice the correct amount. If stock prices adjust before the fact as this estimate suggests, the combination of these two effects would lead to overcompensation significantly in excess of twice the correct adjustment. Of course, if the true effect of retirement health liabilities on stock prices were other than one-half or if the offset were other than one-half, these actual numbers would change. The large degree of uncertainty about the coefficient of .5 reported by Warshawsky means that the correct adjustment for the effects of SFAS 106 will similarly be quite uncertain.

9. The study by USTA indicates that both of these overcompensation effects may be present in the rates proposed by the price cap LECs in their filings. First, the disproportionate effect of SFAS 106 on LECs which the USTA study documents implies that the effect on stock prices and hence cost of capital which Warshawsky finds for private companies in a similar situation was probably present for LECs. That is, based on the USTA study, there is strong reason to believe that the cost of capital which the LECs earned under the old rate structure already included a partial compensation for the anticipated effects of SFAS 106. As paragraphs 5 and 6 argue, ignoring this effect implies an overcompensation.

10. Secondly, the USTA study has no accounting for possible offsetting actions by LECs or government. In fact, the opposite assumption is made quite explicitly. In calculating the Benefit Level Indicator ("BLI") which is used in reaching the conclusion that LECs would be disproportionately affected, the USTA study states

> the BLIs are based only on current levels of medical costs and Medicare reimbursement. We consider only current levels because the SFAS 106 requirement to value the "substantive" plan suggest that it is reasonable to assume that plan provisions (e.g. deductibles, out-of-pocket maximums, etc.) will generally be projected (either explicitly or implicitly) to stay consistent with aggregate cost levels. (p. 14)

Though the motivation for this assumption seems clear, it stands in sharp contrast to the belief that future benefits may be capped or eliminated or that they may be taken over in part by the government (for example, by a national health insurance plan). Thus, it has the implication that such cost estimates will lead to an overcompensation, as outlined in paragraph 8, if future actions by either the Federal government or by the LECs themselves serve to lower these costs. The findings by Warshawsky suggests that this is seen as a distinct possibility.

11. The USTA study also presents a macroeconomic model to estimate the effect of SFAS 106 on the GNP Price Index (GNP-PI) to see what fraction of costs will be recovered via the increase in GNP-PI. The macroeconomic model is theoretically correct, but a very highly simplified and abstract model of the U.S. economy. For example, there are assumed to be only two aggregate factors of production, total capital and total labor, and the whole economy is assumed to be perfectly competitive. Hence the true effect of SFAS 106 on the GNP-PI may be significantly different (in a statistical sense, though

probably not in order of magnitude) than the figure of .0124 % that is presented. The true effect on the average wage rate in the economy may also be very different than what the very simple macroeconomic model predicts, both in terms of statistical significance and in terms of order of magnitude.

12. To summarize, theory and evidence give every reason to believe that stock prices and cost of capital of firms disproportionately affected by SFAS 106 will partially reflect its effect ex ante, but that the magnitude of this effect is uncertain. The correct ex post adjustment to guarantee investors a fair rate of return depends on the extent that stock prices adjusted ex ante, the uncertainty which these prices reflected, and the extent the effects on actual costs will be offset. The price cap increases requested in the LEC filing appears to be the correct adjustment only if (1) there was no effect of the anticipation of SFAS 106 on stock prices and (2) the cost estimates on which the price cap increases are based correctly account for possible government and LEC offset. Neither of these conditions appear to be fulfilled.

In contrast, if the stock prices of LEC stock behaved in the way that Warshawsky's study suggest that stock prices of every similar firm behaved, the LEC proposal would result in an overcompensation. The rate of return earned by investors would adjust once (though partially) in anticipation of the changes and a second time (fully) when the cost changes implied by SFAS 106 were actually implemented. To the extent that the cost estimates put forward by USTA fail to take account of the possible (and, according to the market, likely) offset due to government or corporate response to SFAS 106, the LEC

proposal could result in the compensation to investors actually exceeding double compensation.